

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Appl. No. | : | 10/033,328 | Confirmation No. | 9602 |
| Applicant | : | Patek | | |
| Filed | : | 11/2/2001 | | |
| TC/A.U. | : | 2153 | | |
| Examiner | : | Strange | | |
| Docket No. | : | T015-P07180US | | |
| Customer No. | : | 33356 | | |

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Dear Sir:

The following Reply Brief is submitted in response to the Examiner's Answer dated 3/28/2008.

Please consider the following discussion of the "Response to Argument" section of the Examiner's Answer (section 10, starting on page 10).

Claims 1 and 25

Independent claims 1 and 25 stand rejected under 35 USC §102(b) as anticipated by Chin (US 5,617,421). To anticipate a claim, the reference must teach each and every element of the claim. MPEP §2131 provides:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. [. . .] The identical invention must be shown in as complete detail as is contained in the ... claim.

The rejection of claims 1 and 25 is respectfully traversed on the grounds that Chin does not expressly or inherently describe that data items are concurrently transferred to a plurality of selected destinations. Instead of meeting the statutory requirement, as expressed in the MPEP, the Examiner has relied upon unsupported conjecture. Conjecture is not an acceptable basis for rejecting claims.

Chin describes that multicast packets may be forwarded to multiple ports, but does not describe that the packets are forwarded concurrently, as opposed to, for example, consecutively.

The Examiner's Answer concedes that Chin lacks a statement that multicast packets are forwarded to multiple ports concurrently. The Examiner simply speculates that "one of ordinary skill in the art, armed with even a rudimentary understanding of multicast packet switching, would have understood Chin's teaching of forwarding a packet to multiple ports inside a switch to means concurrently forwarding the packet to each of the ports for transmittal." The Examiner did not cite a single patent or non-patent reference that explicitly describes forwarding multicast packet concurrently. Thus the specification cannot be used to reject the claims.

Further, the purpose of the Examiner's speculation is unclear. A rejection of a claim under 35 USC 102 is usually based on a single reference that describes all elements of the claim.

Additional references or evidence may be used to explain the meaning of a term in the primary reference or to demonstrate that a feature is inherent in the primary reference. However, speculation by the Examiner is not evidence. Since Chin does not explicitly disclose concurrent forwarding of multicast packets, and since evidence demonstrating that Chin implicitly or inherently discloses concurrent forwarding of multicast packets has not been provided, it is respectfully submitted that claims 1 and 25 are allowable over Chin. The rejection of claims 1 and 25 under 35 USC 102(b) should be reversed.

Claim 8

Independent claim 8 is rejected under 35 USC §103 as unpatentable over Chin (US 5,617,421) in view of Nolan (US 6,661,790). Independent claim 8 includes a similar limitation as claim 1, namely “transferring a reference to said frame to at least two selected output queue controllers in accordance with said mask, wherein the reference to said frame is concurrently transferred to at least two selected output queue controllers in accordance with said mask”. (underline added). As argued above, Chin does not explicitly disclose concurrent forwarding of multicast packets, and evidence demonstrating that Chin implicitly or inherently discloses concurrent forwarding of multicast packets has not been provided. Further, Nolan does not cure this deficiency. Since both Chin and Nolan fail to describe concurrently transferring a frame to multiple output controllers, a combination of Chin and Nolan cannot have this feature except by hindsight importation from the teaching of the instant application. Therefore, the 103(a) rejection of claim 8 should be reversed.

Claim 22

Independent claim 22 is also rejected under 35 USC §103 as unpatentable over Chin (US 5,617,421) in view of Nolan (US 6,661,790). However, the final Office action failed to show that Chin and/or Nolan teach or suggest any of the limitations recited in claim 22. Specifically, the Office action fails to show where Chin and Nolan teach:

- a first crossbar switch for transferring said frame from an input port of said plurality of input ports to a shared memory;
- a frame pointer for referencing said frame stored in said shared memory;
- a second crossbar switch for transferring said frame using said frame pointer to a plurality of selected output ports of said plurality of output ports; and
- a control unit for selecting said plurality of selected output ports using a multicast data structure having predetermined multicast routes.

The Examiner's Answer attempts to overcome the deficiencies of the final Office action by first asserting that claim 22 is "a system claim that substantially corresponds to method claim 8." This assertion is simply wrong. Claims 8 and 22 are reproduced below for ease of comparison. Applicant is not able to find any "substantial correspondence" between the two claims.

| <u>Claim 8</u> | <u>Claim 22</u> |
|--|--|
| <p>A method for multicasting a frame in a router, said router comprising an input queue and a plurality of output queues, said method comprising:</p> <p>determining a destination identifier for said frame received by said input queue;</p> <p>using said destination identifier, locating a data structure comprising a mask for said plurality of output queues; and</p> <p>transferring a reference to said frame to at least two selected output queue controllers in accordance with said mask, wherein the reference to said frame is</p> | <p>A system for multicasting a frame in a router having a plurality of input ports and a plurality of output ports, comprising:</p> <p>a first crossbar switch for transferring said frame from an input port of said plurality of input ports to a shared memory;</p> <p>a frame pointer for referencing said frame stored in said shared memory;</p> <p>a second crossbar switch for transferring said frame using said frame pointer to a plurality of selected output ports of said plurality of output ports; and</p> <p>a control unit for selecting said plurality of selected output ports using a multicast data structure having predetermined</p> |

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| concurrently transferred to at least two selected output queue controllers in accordance with said mask. | multicast routes. |
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The Examiner's Answer then speculates "the claimed switches (of claim 22) are merely the hardware that performs the method of claim 8." The relevance of this assertion, even if correct, is unclear. Assuming, in arguendo, that claim 8 is not allowable, the unpatentability of a method is not a basis for rejecting claims drawn to any apparatus that may be used to perform the method.

Finally, the Examiner's Answer proposes that the "first crossbar switch corresponds to Chin's receive circuitry of the switch ports" and that the "second crossbar switch correspond to the processing and forwarding circuitry (within the switch ports)". However, a crossbar switch is a well-known switching element having multiple inputs and multiple outputs and an array of switches for routing signals or data from each of the inputs to each of the outputs. Crossbar switches have been known from the earliest days of telephone systems. For example, US 1,991,193, filed in 1933, describes an improved cross-bar switching unit. While modern crossbar switches route digital packets, rather than analog telephone signals, they still have multiple inputs and outputs and a matrix array of switch elements. To paraphrase the Examiner's Answer, one of ordinary skill in the art, armed with even a rudimentary understanding of packet switching, would have understood that the receive and processing circuitry within each of Chin's ports are not equivalent to first and second crossbar switches.

The Examiner's Answer further asserts that the claimed control unit corresponds to a portion of Chin's switching fabric circuit. Irrespective of whether this is true, it is respectfully submitted Chin's description does not provide an enabling disclosure of any particular embodiment of the switching fabric.

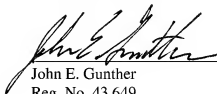
Since Chin and Nolan, singly or in combination, fail to describe any of the elements of claim 22, the rejection of claim 22 should be reversed.

CONCLUSION AND RELIEF

In view of the foregoing, it is believed that all claims patentably define the subject invention over the prior art of record and are in condition for allowance. The undersigned requests that the Board overturn the rejection of all claims and hold that all of the claims of the above referenced application are allowable.

Date: May 21, 2008

Respectfully submitted,



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